

[0249] Another class of embodiments of the present invention is one in which each device in the class includes a touch screen, and additionally includes exactly one modifier spot (either mechanical or touch-sensitive), and additionally includes one or more touch sensitive edges.

[0250] Another class of embodiments of the present invention is one in which each device in the class includes a touch screen, and additionally includes exactly one touch-sensitive modifier spot, and additionally includes one or more touch sensitive edges.

[0251] FIG. 13-A illustrates a front view of a portable electronic display device according to a preferred embodiment of the present invention. This preferred embodiment has two touch sensitive areas along the bottom of the device, one on the left side, and one on the right side, each of which is substantially independent of the others and each of which enables the device to detect the direction and approximate speed of a finger or hand sliding along that touch sensitive area, so that the device can translate that into horizontal or vertical scrolling of content being displayed on the device. And this preferred embodiment also includes a modifier spot. This preferred embodiment also includes a display and a touch screen (for detecting clicks on items displayed on the display). And this preferred embodiment can optionally include one or more expansion slots (as illustrated by item 1310) for memory cards or input-output peripherals such as cameras or radios. FIGS. 13-B, 13-C, and 13-D illustrate the bottom view, top view, and right side view, respectively, of the portable electronic display device preferred embodiment shown in front-view in FIG. 13-A.

[0252] Another class of embodiments of the present invention is one in which each device in the class includes a touch screen, and additionally includes exactly one touch-sensitive modifier spot, and additionally includes two adjacent touch sensitive strips along the bottom edge, and at least one additional touch sensitive area along either the left edge or the right edge or both (as illustrated in FIG. 13-A). A notable subclass of this class of devices is one in which each device in the class has a display with between 320 and 800 horizontal pixels and between 240 and 600 vertical pixels. Another notable subclass of this class of devices is one in which each device in the class has a display with between 480 and 760 horizontal pixels and between 320 and 500 vertical pixels and a pixel density no greater than 175 points-per-inch, and where the device's overall dimensions are no more than 5.5 inches by 4 inches.

[0253] A preferred embodiment of the present invention is one that includes a touch screen that can display between 500 and 700 horizontal pixels and between 360 and 440 vertical pixels, as well as exactly one touch-sensitive modifier button centered horizontally beneath the display (as illustrated in FIG. 13-A, item 1201), as well one touch-sensitive strip along the left edge (as illustrated in FIG. 13-A, item 1006) and one touch-sensitive strip along the right edge (as illustrated in FIG. 13-A, item 1005), as well as two adjacent touch-sensitive strips along the bottom edge (as illustrated in FIG. 13-B, item 1001 and item 1002), and where the overall device dimensions (in at least one configuration in which the user operates the device while viewing content on said display) are no more than 5.2 inches wide and no more than 3.75 inches tall, and where the display's pixel density is no more than 164 pixels-per-inch and no less than 96 pixels per inch.

[0254] FIG. 16-A illustrates a front view of a portable electronic display device according to another preferred embodiment of the present invention that is just like the preferred embodiment discussed for FIG. 13-A above but that also includes two additional touch sensitive areas on the top edge of the device. Those touch sensitive areas on the top edge of the device could optionally be implemented using simple touch sensor components that merely detect taps (contact or non-contact over time) rather than being able to also detect sliding direction and speed like the touch sensitive areas along the sides and bottom of this preferred embodiment. FIGS. 16-B, 16-C, and 16-D illustrate the bottom view, top view, and right side view, respectively, of the portable electronic display device preferred embodiment shown in front-view in FIG. 16-A.

[0255] For each embodiment discussed above in connection with FIG. 13, additional preferred embodiments would also include one or more touch sensitive areas on the top of the device as illustrated by items 1003 and 1004 in FIG. 16-A and FIG. 16-C. These could be either basic touch-sensitive spots (i.e., basic in that they just detect whether that area is being touched or not, so they can be used to sense taps for example), or they could be touch-sensitive strips that sense what point on the strip is being touched so they can be used to sense sliding along that strip (similar to the touch-sensitive strips on 1005 and 1005 in FIG. 13-A and FIG. 16-A).

[0256] As noted earlier, constraints on overall device dimensions specified in some of these embodiment descriptions are not meant to necessarily account for covers, cases, antennas, or peripherals that can be attached to the devices. When those extra items are included in the measurements, the overall dimensions can be larger.

[0257] The foregoing defined a class of devices in which each device has a display, and includes one or more touch sensitive areas running along one or more of the edges of the device (outside of the display), and the device includes electronics and software which work together to detect certain types of contact by a user's finger or hand on those touch sensitive areas and responds by controlling the device in some way. A subclass of this class of devices is one in which each device in the subclass includes a TV receiver—so that the device is capable of displaying live TV stations. And a further subclass would be one in which each device in the further subclass would additionally have a wireless radio (either local-area such as a WiFi radio, or wide-area such as a cell phone radio) so that they are capable of both displaying live TV as well as allowing the user to view and interact with Web content. Indeed, any of the embodiments described earlier could include one or more of these types of radios.

[0258] Another class of embodiments of the present invention is one in which each device in the class has a display that fills at least 80% of the front surface of the device in at least one configuration in which the device can be operated while viewing content on said display, and where the device has one or more touch sensitive edges. A subclass of this class is one in which each device in the subclass includes a wireless radio (either local-area or wide-area). Another subclass is one in which each device in the subclass includes two or more touch-sensitive strips along its edges.

[0259] As noted in the Background section above, FIG. 18 illustrates another class of embodiments of the present